U.S. Department of the Interior • U.S. Geological Survey

MANGANESE IN DECEMBER 1996

MINERAL INDUSTRY SURVEYS

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In December, reported consumption of manganese ore containing 35% or more manganese, exclusive of that at iron and steel plants, was 37,800 metric tons, which was a decrease of about 4% compared with that of the previous month, according to the U.S. Geological Survey. This brought the yearto-date total to 417,000 tons, which is slightly more than 1% greater than the comparable figure for 1995. The figures for December 1996 increase to 42,300 and 471,000 when estimates for annual respondents are added on the basis of 1994 data. Corresponding industry stocks of ore at the end of the month were estimated as 330,000 tons, which includes an estimate for annual respondents based on 1994 data. This was an increase of about 10% in comparison with the corresponding figure for stocks at the end of November. Stocks at yearend 1996 were the greatest of the year and were about 11% greater than the corresponding figure for yearend 1995. (Data for the most recent 13 months are graphed on page 2.)

The next report of data on domestic consumption and stocks of manganese ferroalloys and metals will pertain to the October through December quarter of 1996.

Note

Early availability of foreign trade statistics via FaxBack: The

November trade data appearing in this report were placed on FaxBack in preliminary form as of January 28. The FaxBack document number for these preliminary tables was 420211.

Foreign trade data for December will appear in a subsequent report. The data for November tabulated in this report indicate that as of November the quantity of imports exceeded that for all of 1995 for total ore, total ferromanganese, low-carbon ferromanganese, and high-carbon ferromanganese. Total ore imports grew to the largest total since 1989, as further large shipments were received from Gabon. Total imports of metal during November were the greatest since August 1995. Among exports, the total for ferromanganese was the greatest since October 1995.

The Defense Logistics Agency (DLA), U.S. Department of Defense, reported for December no disposals from the National Defense Stockpile. The cumulative totals, in tons, for disposals of manganese Government stockpile excesses reported by DLA in 1996 were 38,501 for metallurgical-grade ore, 7,121 for natural battery-grade ore, and 2,518 for electrolytic metal. All disposals were cash.

$\label{eq:table 1} \textbf{TABLE 1}$ SELECTED U.S. FOREIGN TRADE IN MANGANESE 1/

(Metric tons, manganese content) 2/

	Imports for consumption						Exports	
	Ore and	Ferroalloy				Ferroalloy		
	dioxide		and metal		Total	Ore	and metal	Total
1995:								
November	36,300		38,000		74,300	158	1,300	1,460
January-November	166,000		403,000		569,000	6,990	18,200	25,200
1996:								
January	8,860	3/	47,100	3/	56,000	386	1,540	1,930
February	1,410	3/	36,200	3/	37,600	1,620	1,670	3,290
March	14,400	3/	46,900	3/	61,300	435	1,610	2,050
April	32,500		61,400	3/	93,900	1,220	1,760	2,980
May	20,400	3/	46,800		67,200	2,240	1,630	3,870
June	26,300	3/	45,000	3/	71,300	2,550	1,230	3,780
July	18,100	3/	19,500		37,700	1,210	841	2,050
August	7,700	3/	55,500	3/	63,200	2,080	1,210	3,290
September	5,030	3/	33,400	3/	38,400	1,300	1,110	2,410
October	51,500	3/	34,200		85,700	912	1,280	2,190
November	27,500		50,900	3/	78,400	419	1,940	2,350
Total	214,000		477,000		691,000	14,400	15,800	30,200

^{1/} Data are rounded to three significant digits; may not add to totals shown.

Source: Bureau of the Census.

 ${\bf TABLE~2} \\ {\bf U.S.~IMPORTS~FOR~CONSUMPTION~OF~SILICOMANGANESE~IN~NOVEMBER~1996~1/}$

(Metric tons)

						Year to date		
	Gross	Mn		Customs	Gross	Mn	Customs	
Source	weight	content		value	weight	content	value	
Argentina					7,490	4,870	\$4,910,000	
Australia	10,000	6,690		\$4,310,000	45,500	30,400	27,100,000	
France					20,900	13,800	11,100,000	
Georgia					1,260	884	701,000	
India	1,150	805		524,000	44,300	29,100	25,600,000	
Kazakstan	1,580	724	2/	752,000	5,590	3,010	3,050,000	
Macedonia					11,000	7,460	4,910,000	
Mexico	2,000	1,310		951,000	22,100	14,400	12,600,000	
Norway	2,750	1,680		2,710,000	10,100	6,130	9,750,000	
Poland					3,040	2,100	2,050,000	
Romania					12,400	8,290	6,790,000	
Russia	4,620	2,120	2/	1,940,000	8,330	4,040	3,790,000	
South Africa	8,850	5,880		4,070,000	87,100	58,800	51,200,000	
Spain	1,000	627		838,000	2,800	1,750	2,560,000	
Venezuela					18,000	11,300	10,900,000	
Total	32,000	19,800		16,100,000	300,000	196,000	177,000,000	
Total, general imports	32,000	19,800		16,100,000	302,000	198,000	178,000,000	

^{1/} Data are rounded to three significant digits; may not add to totals shown.

^{2/} As reported except as estimated for imports of manganese dioxide and manganese waste and scrap and for exports from gross weights.

^{3/} All or part of these data have been referred to the Bureau of the Census for verification.

 $^{2\!/}$ All or part of these data have been referred to the Bureau of the Census for verification.

 ${\bf TABLE~3}$ U.S. IMPORTS FOR CONSUMPTION OF FERROMANGANESE IN NOVEMBER 1996 1/

(Metric tons)

					Year to date	
	Gross	Mn	Customs	Gross	Mn	Customs
Source	weight	content	value	weight	content	value
Low carbon:						
Bangladesh				28	24	\$16,700
Belgium				33	27	19,500
Brazil				20	17	39,000
Canada				42	34	53,000
Italy	849	766	\$1,380,000	5,540	4,970	8,970,000
Japan				2,380	1,990	2,750,000
Norway				1,070	883	1,240,000
South Africa	300	277	533,000	2,220	2,040	3,870,000
Total, low carbon	1,150	1,040	1,910,000	11,300	9,980	17,000,000
Total, general imports						
of low carbon	1,150	1,040	1,910,000	11,400	10,000	17,000,000
Medium carbon, 1%-2% C:						
Brazil	1,320	1,050	1,020,000	5,210	4,170	4,340,000
China	1,270	1,020	1,000,000	11,700	9,440	9,300,000
France				4,200	3,430	3,280,000
Japan	2,500	2,020	1,950,000	24,600	19,800	19,500,000
Mexico	2,480	1,990	1,950,000	22,100	17,700	17,900,000
Norway				2,540	2,080	2,060,000
South Africa	240	190	223,000	4,230	3,390	3,710,000
Total, m.c., 1%-2% C	7,800	6,270	6,150,000	74,600	60,000	60,100,000
Total, general imports						
of m.c., 1%-2% C	7,800	6,270	6,150,000	74,600	60,000	60,100,000
High carbon:						
Australia	1,510	1,050	325,000	33,900	25,500	13,500,000
Brazil	5,810	4,470	2,260,000	27,800	21,000	11,400,000
France	8,980	7,060	3,940,000	82,800	65,000	38,400,000
Mexico				6	5	3,650
Norway				56	45	66,500
South Africa	13,800	10,100	5,810,000	115,000	89,200	51,600,000
Total, high carbon	30,100	22,700	12,300,000	260,000	201,000	115,000,000
Total, general imports						
of high carbon	30,100	22,700	12,300,000	260,000	201,000	115,000,000
Grand total	39,100	30,000	20,400,000	346,000	271,000	192,000,000
Grand total, general imports	39,100	30,000	20,400,000	346,000	271,000	192,000,000

^{1/} Data are rounded to three significant digits; may not add to totals shown.

 ${\bf TABLE~4}$ U.S. IMPORTS 1/ OF MANGANESE ORE (20% OR MORE MN) IN NOVEMBER 1996 2/

(Metric tons)

	20% - 479	% Mn	47% or m	ore Mn	Tota	l
	Gross	Mn	Gross	Mn	Gross	Mn
Source	weight	content	weight	content	weight	content
Gabon			49,900	25,300	49,900	25,300
Mexico	200	88	401	272	601	360
Morocco			18	9	18	9
Total	200	88	50,300	25,600	50,500	25,700
Year to date:						
Australia			96,000	48,900	96,000	48,900
Belgium			9	8	9	8
Brazil	18,700	4,640			18,700	4,640
Gabon			258,000	114,000	258,000	114,000
Mexico	40,600	15,000	2,330	1,560	42,900	16,600
Morocco			18	9	18	9
South Africa			27,000	12,900	27,000	12,900
United Kingdom			60	52	60	52
Total	59,200	19,700	384,000	178,000	443,000	198,000

^{1/} Quantities for general imports and imports for consumption are identical.

Source: Bureau of the Census.

 ${\bf TABLE~5} \\ {\bf U.S.~IMPORTS~FOR~CONSUMPTION~OF~MANGANESE~DIOXIDE~AND~MANGANESE~METAL~IN~NOVEMBER~1996~1/} \\$

(Metric tons, gross weight)

		Manganes	se dioxide		Manganese metal					
			Year	to date	Unwi	ought	Ot	her		
		Customs		Customs						
Source	Quantity	value	Quantity	value	Quantity	Year to date	Quantity	Year to date		
Australia	2,100	\$2,980,000	18,000	\$25,500,000						
Austria			2	4,080						
Belgium	37	59,400	903	1,570,000				30		
Brazil			254	349,000						
Canada			5	7,940				9		
China	17	19,100	34	38,700	80	920				
France	(2/)	2,860	(2/)	2,860			6	91		
Germany	8	39,000	95	442,000	20	20		162		
India	16	23,000	16	23,000						
Ireland	660	925,000	6,350	8,880,000						
Italy							(2/)	(2/)		
Japan			13	37,900						
Mexico			4	6,480						
Russia						3				
South Africa	191	261,000	629	892,000	737	7,640		335		
Ukraine					234	424				
United Kingdom			375	594,000			(2/)	152		
Total	3,030	4,310,000	26,700	38,300,000	1,070	9,010	6	779		
Total, general imports	3,030	4,310,000	26,800	38,400,000	1,090	9,460	6	779		

^{1/} Data are rounded to three significant digits; may not add to totals shown.

Note: Imports for consumption of metallic manganese waste and scrap totaled 50 tons, of which 48 tons was from Norway and 2 tons was from Mexico, to give a year to date total of 312 tons.

^{2/} Data are rounded to three significant digits; may not add to totals shown.

^{2/} Less than 1/2 unit.

TABLE 6 U.S. EXPORTS OF MANGANESE ORE (20% OR MORE MN), FERROMANGANESE, SILICOMANGANESE, AND MANGANESE METAL BY COUNTRIES OF DESTINATION IN NOVEMBER 1996 1/

(Metric tons, gross weight)

			Ferroma	inganese,				
	Manga	Manganese ore		2% or less C		anganese	Manganese metal 2/	
	November	Year to date	November	Year to date	November	Year to date	November	Year to date
Australia		142		5		2		
Belgium	661	3,410						544
Bolivia		3						
Brazil		2,290		12		9		46
Canada	177	5,320	648	5,640	299	4,710	117	979
China		5,620						
Colombia				31				3
El Salvador		354						
France		1,990		94				348
Germany		478						95
Hong Kong				6			1	6
India		153						41
Indonesia								2
Italy		1,930						16
Japan		2,860					91	917
Korea, Republic of		519					96	311
Mexico		130		191	4	306	26	304
Netherlands						141	19	452
Pakistan								(3/)
Saudi Arabia								1
Sweden		3,380					38	177
Taiwan							1	53
Trinidad and Tobago		159						
United Kingdom		(3/)	13	13				966
Venezuela				14				
Total	838	28,700	661	6,000	303	5,170	391	5,260

^{1/} Data are rounded to three significant digits; may not add to totals shown.

Note: Exports of ferromanganese with more than 2% carbon totaled 1,040 tons, of which 1,040 tons went to Canada and 1 ton went to Mexico, to give a year to date total of 3,040 tons.

^{2/} Includes manganese-aluminum, some other alloys, and waste and scrap.

^{3/} Less than 1/2 unit.

TABLE 7 U.S. FOREIGN TRADE IN SELECTED MANGANESE CHEMICALS IN NOVEMBER 1996, BY CLASS 1/

					Year to day	te p/ 2/
			Principal sources and destinations:			Principal sources and destinations:
	Gross weight	Value 3/	gross weight (metric tons);	Gross weight	Value 3/	gross weight (metric tons);
Class	(metric tons)	(thousands)	value (thousands) 3/	(metric tons)	(thousands)	value (thousands) 3/
Imports for consumption:						
Manganese oxides other than dioxide	87	\$195	Japan 48; \$132	979	\$2,330	Japan 399; \$1,200
Sulfates, basket category,			-			
including manganese sulfate	2,140	1,120	Mexico 1,960; \$937	25,900	14,400	Mexico 17,300; \$8,130
Potassium permanganate	129	274	Czech Republic 54; \$103	1,360	2,710	Czech Republic 612; \$1,160
Manganites, manganates, and						
other permanganates	1	10	Germany 1; \$10	28	100	Canada 27; \$83
Exports:						
Manganese dioxide	264	296	Canada 170; \$68	3,140	3,430	Canada 1,620; \$712
Manganese oxides other than dioxide	581	728	Canada 213; \$100	7,510	8,160	Canada 3,130; \$1,410
Sulfates, basket category,						
including manganese sulfate	1,880	1,500	Canada 1,420; \$504	20,100	13,000	Canada 16,200; \$5,540
Potassium permanganate	64	83	Taiwan 26; \$4	501	1,110	Germany 199; \$450
Manganites, manganates, and						
other permanganates	28	198	Germany 18: \$127	200	1,110	Germany 96; \$496

p/ Preliminary.

^{1/} Data are rounded to three significant digits.2/ May include revisions to previous months' data.

^{3/} For imports, Customs value; for exports, f.a.s. value.